



Street & Addressing Tools for NG911 - Don't Be Left Behind

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NJ NENA Conference

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Harrah's Casino Resort, Atlantic City

NJ Office of GIS, <http://njgin.state.nj.us>

https://njgin.state.nj.us/oit/gis/NJ_NJGINExplorer/docs/OGIS_NENA_2016.pdf

Purpose of Statewide Road Centerlines

- Support NJDOT's Highway Network, Straight Line Diagrams, national reporting requirements.
- Support NJDOT and local government's asset management tracking, traffic regulation tracking, snow plow tracking, and other event tracking.
- Support statewide road centerline geocoding.
- Support current and next generation 911 and CAD systems.
- Integration with US Census information

Purpose of Statewide Address Points

- Support current and next generation 9-1-1 and CAD systems.
- Allow municipal government to assign and manage addresses
- Integrate address data with various database systems
- Address based analysis
- Megan's Law notifications
- Integration with US Census information

What is a Road?

A road in the NJ road data model consists of the following:

- Highways (Highway Authority Route, Interstate Route, US Route, State Route, County 500 Route, Other County Route)
- Local Public Roads
- Local Private Roads
- Alleys
- Parking lots that are also a named road
- Driveways/parking lot circulation for important facilities (schools, hospitals, government offices, shopping centers, office complexes...)
- Emergency access lanes/easements

Where did the road information come from?

- Originally generated from the NJDOT highway network
- Enhanced by NJDOT consultant based on updated aerial photography and US Census Bureau TIGER road centerline data
- Available road centerline data from local government sources
- Address ranges came from US Census Bureau TIGER road centerline data and local government sources
- Road Names came from US Census Bureau TIGER road centerline data, NJDOT Straight Line Diagrams, Municipal tax maps and MODIV Tax Assessor data, and local government sources and field observations

How is the road data maintained?

- NJDOT consultant gathers information from field observations and GPS
- NJOGIS adds or revises roads based on updated aerial photography
- User notification to NJOGIS
- Local government partners working together with us
- Adjacent state GIS agencies

How is updated data submitted to NJOGIS?

- Email from users and other agencies
- Direct submission of road centerline data from local government partners to NJOGIS
- NJDOT consultant and local government partners working in desktop GIS software with a connected version of the statewide road centerlines maintenance model. Updates are periodically synchronized up to NJOGIS
- The NJ Road Web Editor application

Road Publication

- All approved edits will be published by OGIS on a monthly basis.
- The published roads data will be available for download from the NJGIN website.
- The published roads data can be imported into various CAD systems. OGIS also publishes a shapefile in Tritech (formerly Tiburon) format.
- The published roads data supports geocoding with multiple road names per road segment.

Purpose of the NJ Road Editor

- Web interface to the NJ Road Centerlines Database
- Users can **view** up-to-date roads (ahead of the publication data)
- Users can **add** new roads based on local knowledge
- Users can **edit** the attributes of existing roads (names, addresses, etc.)
- Users can **suggest** deleting/updating existing roads
- Only open to “trusted” users



Demonstration

1. Navigate to the NJ Road Editor application page
2. Sign in through MyNJ Portal
3. Take tour of the functionality
4. Start Editing
5. Add a new road
6. Suggest deleting an existing road
7. View current edits
8. Save edits

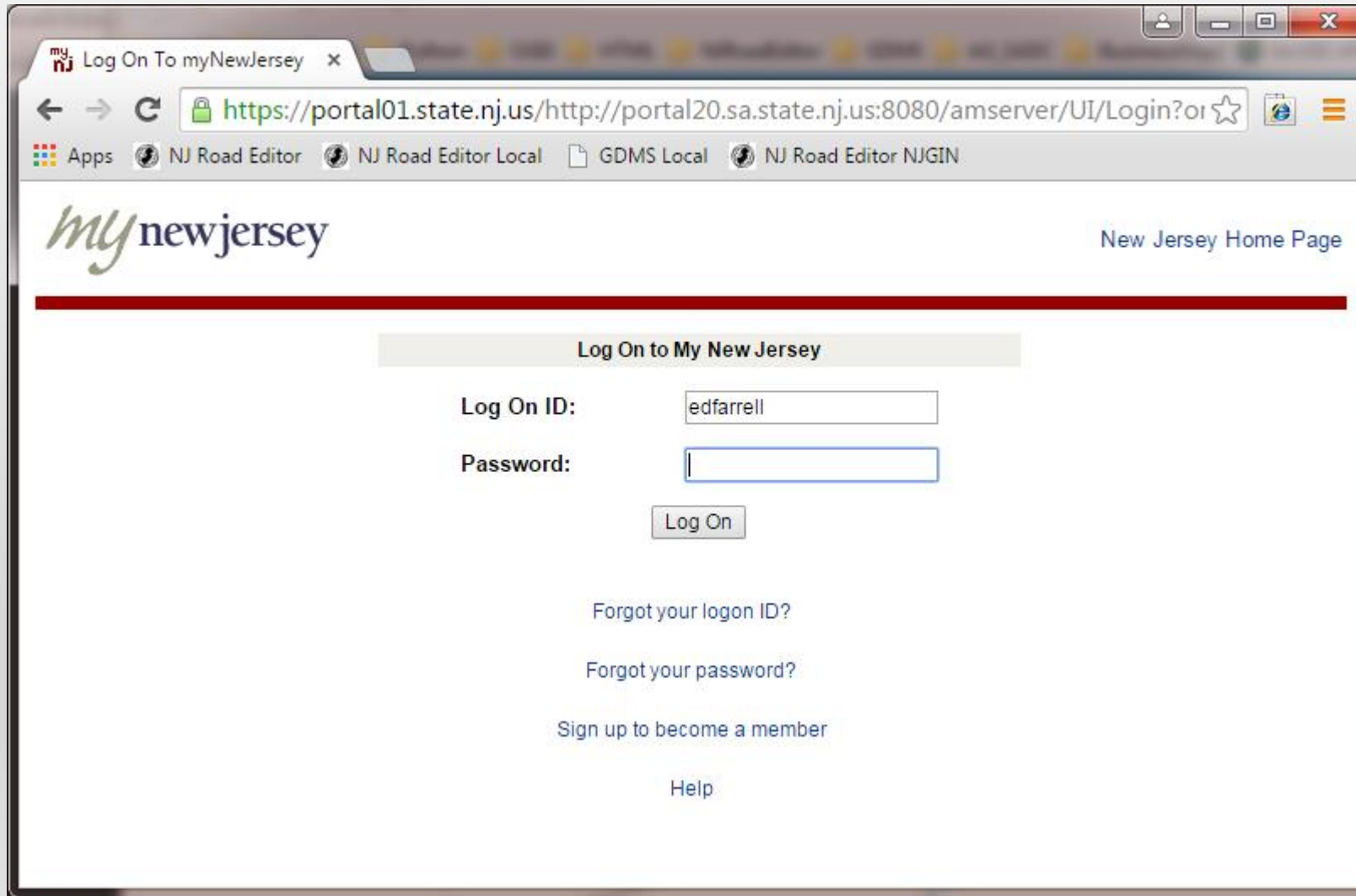


1. Navigate to the NJ Road Editor

You will be prompted to sign in through MyNJ Portal



2. Sign in through MyNJ Portal



The screenshot shows a web browser window with the title "Log On To myNewJersey". The address bar displays the URL: <https://portal01.state.nj.us/http://portal20.sa.state.nj.us:8080/amserver/UI/Login?oi>. The browser's taskbar shows several open applications: "Apps", "NJ Road Editor", "NJ Road Editor Local", "GDMS Local", and "NJ Road Editor NJGIN".

The main content area of the browser displays the "mynewjersey" logo on the left and "New Jersey Home Page" on the right. A thick red horizontal line separates the header from the main content. Below this line, a light gray box contains the text "Log On to My New Jersey".

Below the gray box, there are two input fields: "Log On ID:" with the value "edfarrell" and "Password:" with an empty field. A "Log On" button is positioned below the password field. Below the button, there are three links: "Forgot your logon ID?", "Forgot your password?", and "Sign up to become a member". At the bottom, there is a "Help" link.




NJ Road Editor

← → ↻

https://njgin.state.nj.us/OGIS_RoadEditor/

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 **OGIS**
NEW JERSEY

New Jersey Road Editor

Logout Help

Edit

Identify

Start Editing

Update

New Road

Active Edits 0

Map

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Pennsylvania

Maryland

SUSSEX

PASSAIC

BERGEN

WARREN MORRIS

HUDSON

UNION

SOMERSET

MIDDLESEX

MERCER

MONMOUTH

BURLINGTON

OCEAN

CAMDEN

GLOUCESTER

SALEM

ATLANTIC

CUMBERLAND

CAPE MAY

0 15 30mi

zoom in to view roads



3. Take a Tour of the Functionality



NJ Road Editor x

https://njgin.state.nj.us/OGIS_RoadEditor/

OGIS NEW JERSEY **New Jersey Road Editor** Logout **Help**

Edit Identify Start Editing Update New Road Active Edits 0 Map

Zoom in (+) Zoom out (-)

Pennsylvania

Maryland

0 15 30mi

SUSSEX PASSAIC BERGEN WARREN MORRIS HUDSON UNION SOMERSET MIDDLESEX MERCER MONMOUTH BURLINGTON OCEAN CAMDEN GLOUCESTER SALEM ATLANTIC CUMBERLAND CAPE MAY

zoom in to view roads



NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/

OGIS NEW JERSEY New Jersey Road Editor

Edit Identify Start Edit

Logout Help

Map

Using the New Jersey Road Editor

The New Jersey Road Editor application can be used to view current roads in the NJ Road Centerlines database, add new roads with a variety of user defined attributes, and to update the attributes of existing roads. To learn more about how to use this application, take one of the brief tours listed below. Any comments, issues, or bugs please email njgin@oit.nj.gov

Map Navigation Tour

Editing Roads Tour

Close

zoom in to view roads

0 15 30mi

Maryland

GLOUCESTER SALEM ATLANTIC CUMBERLAND CAPE MAY

16

4. Start Editing

- Click the “Start Editing” button . This will start an edit session.
- You can perform up to 5 edits in each edit session.
- Edits are not saved until the “Stop Editing” button  is clicked.



5. Add a New Road




NJ Road Editor

← → ↻

https://njgin.state.nj.us/OGIS_RoadEditor/

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 **OGIS**
NEW JERSEY

New Jersey Road Editor

Logout Help

Edit

Identify

Start Editing

Update

New Road

Active Edits 0

Map

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+

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Pennsylvania

SUSSEX

PASSAIC

BERGEN

WARREN MORRIS

HUDSON

UNION

SOMERSET

MIDDLESEX

MERCER

MONMOUTH

BURLINGTON

OCEAN

CAMDEN

GLOUCESTER

SALEM

ATLANTIC

CUMBERLAND

CAPE MAY

Maryland

0

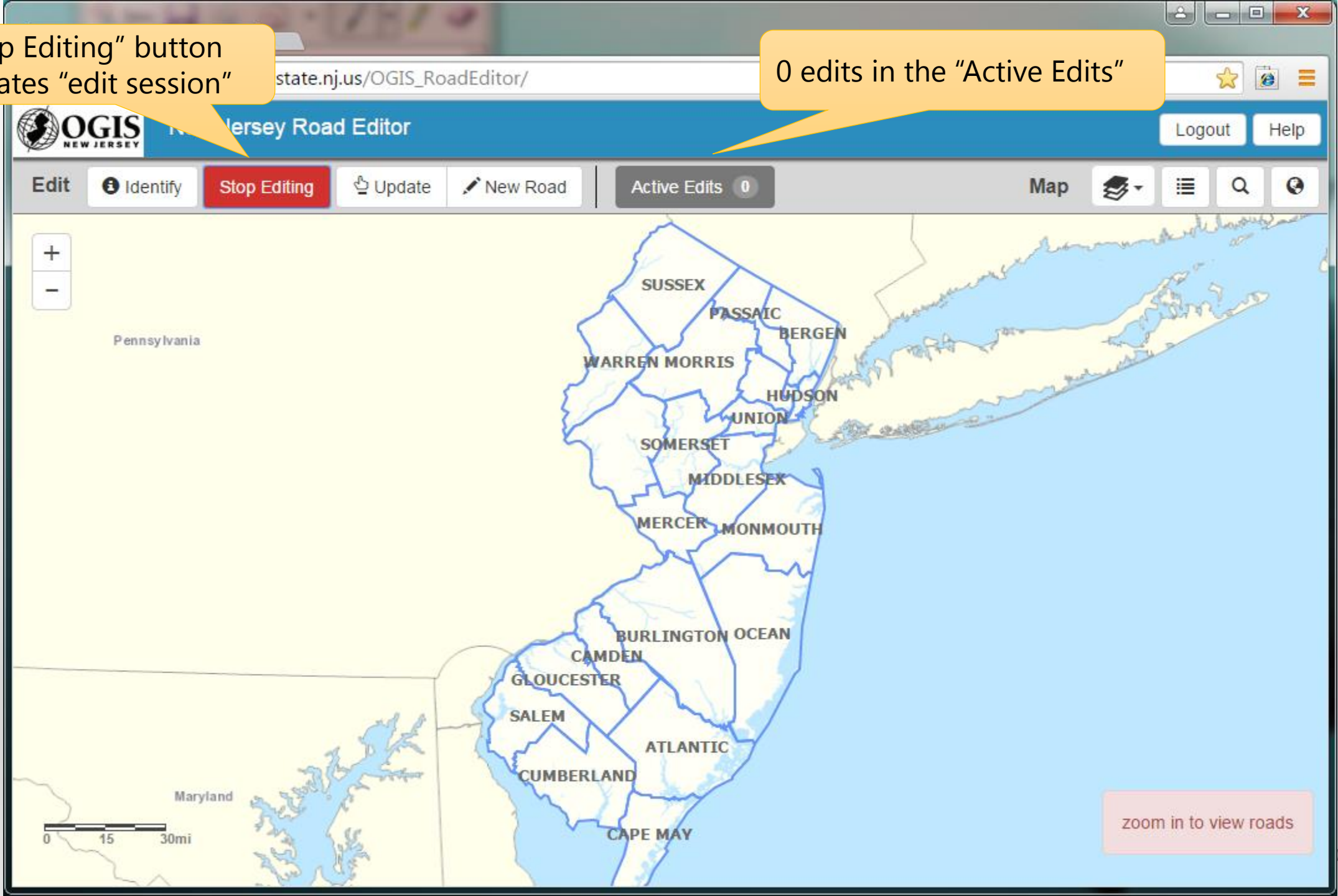
15

30mi

zoom in to view roads

"Stop Editing" button indicates "edit session"

0 edits in the "Active Edits"



NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/#

OGIS NEW JERSEY **New Jersey Road Editor** Logout Help

Edit Identify **Stop Editing** Update New Road Active Edits 0 Map

+

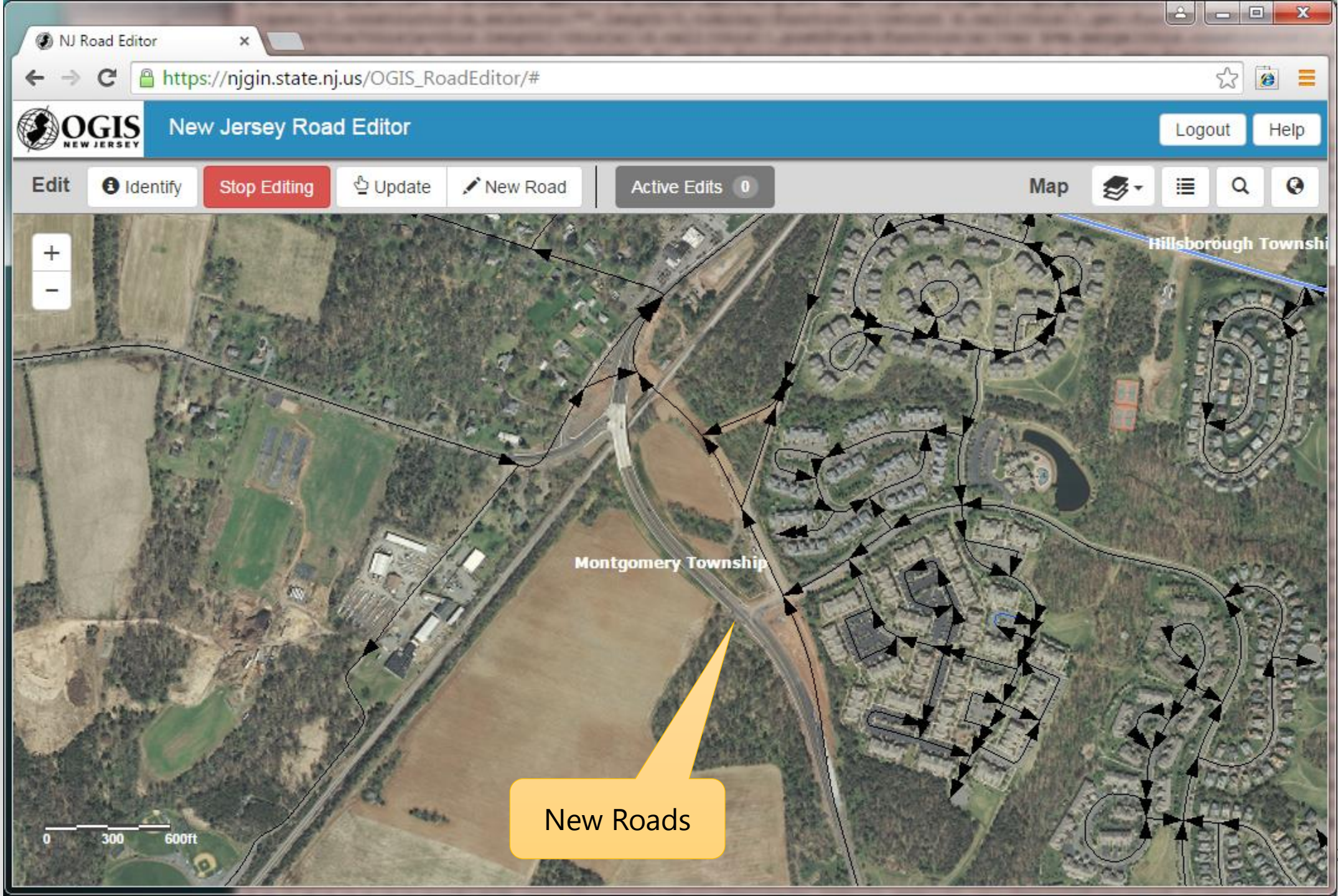
-

Hillsborough Township

Montgomery Township

0 300 600ft





NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/#

OGIS New Jersey Road Editor

Logout Help

Edit Identify **Stop Editing** Update New Road Active Edits 0 Map

Click the New Road Button and use mouse clicks to create the road

0 30 60ft

NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/#

OGIS New Jersey

Edit Identify Stop Edit

Logout Help

Road Name	Rank	Type
Pike Run Road	1	Local
	2	Local
	3	Local
	4	Local
	1	Highway
	2	Highway
	3	Highway

Beginning Left Side Address

Ending Left Side Address

Beginning Right Side Address

Ending Right Side Address

Left Side Zipcode

Right Side Zipcode

08502

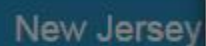
08502

30 60ft

4

Upon completion, a window appears for entering attributes





Identify

Stop Edit

0850208502

Belle Meade

Belle Meade

Montgomery Township, Somerset

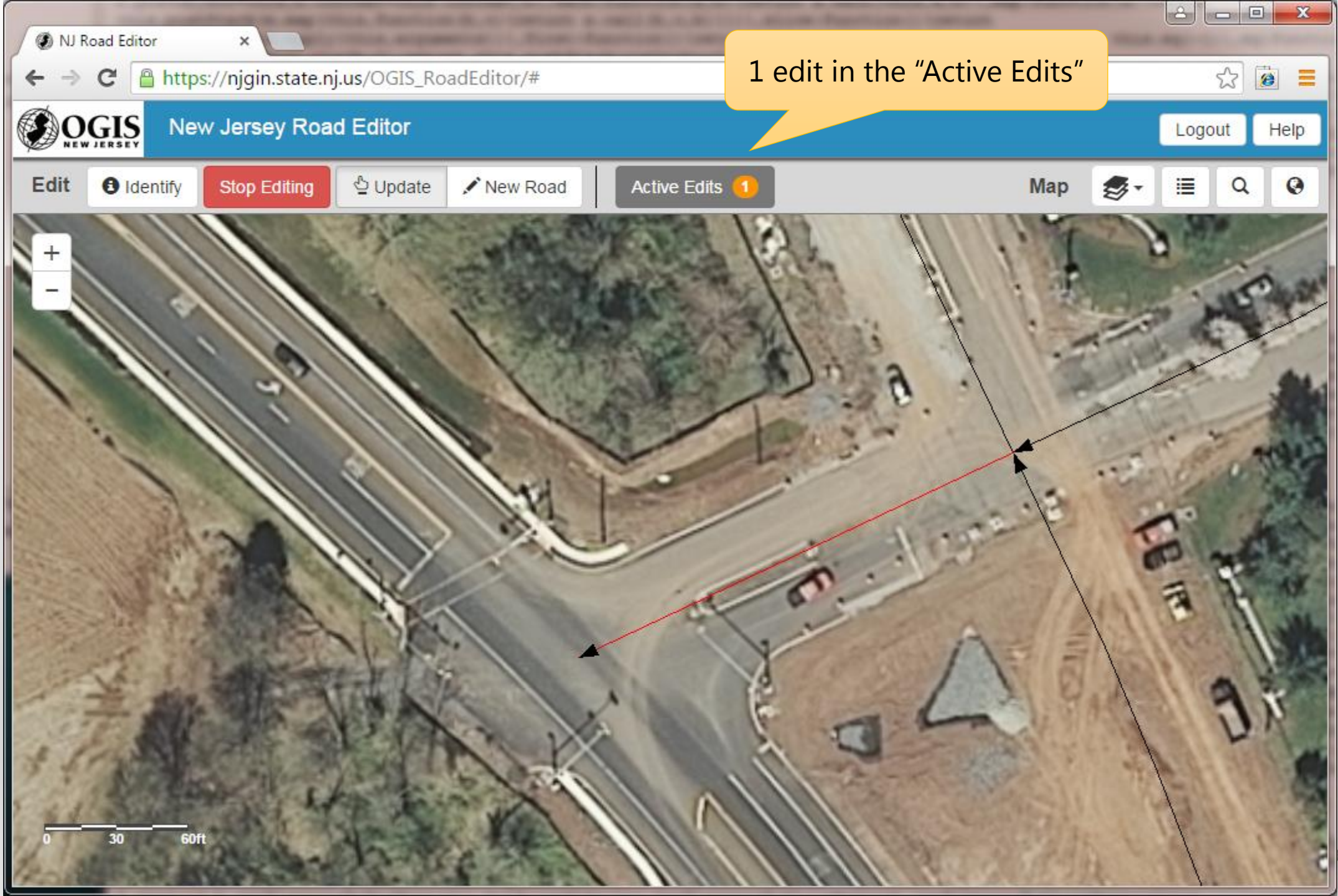
Montgomery Township, Somerset

ImprovedActive

Local Road

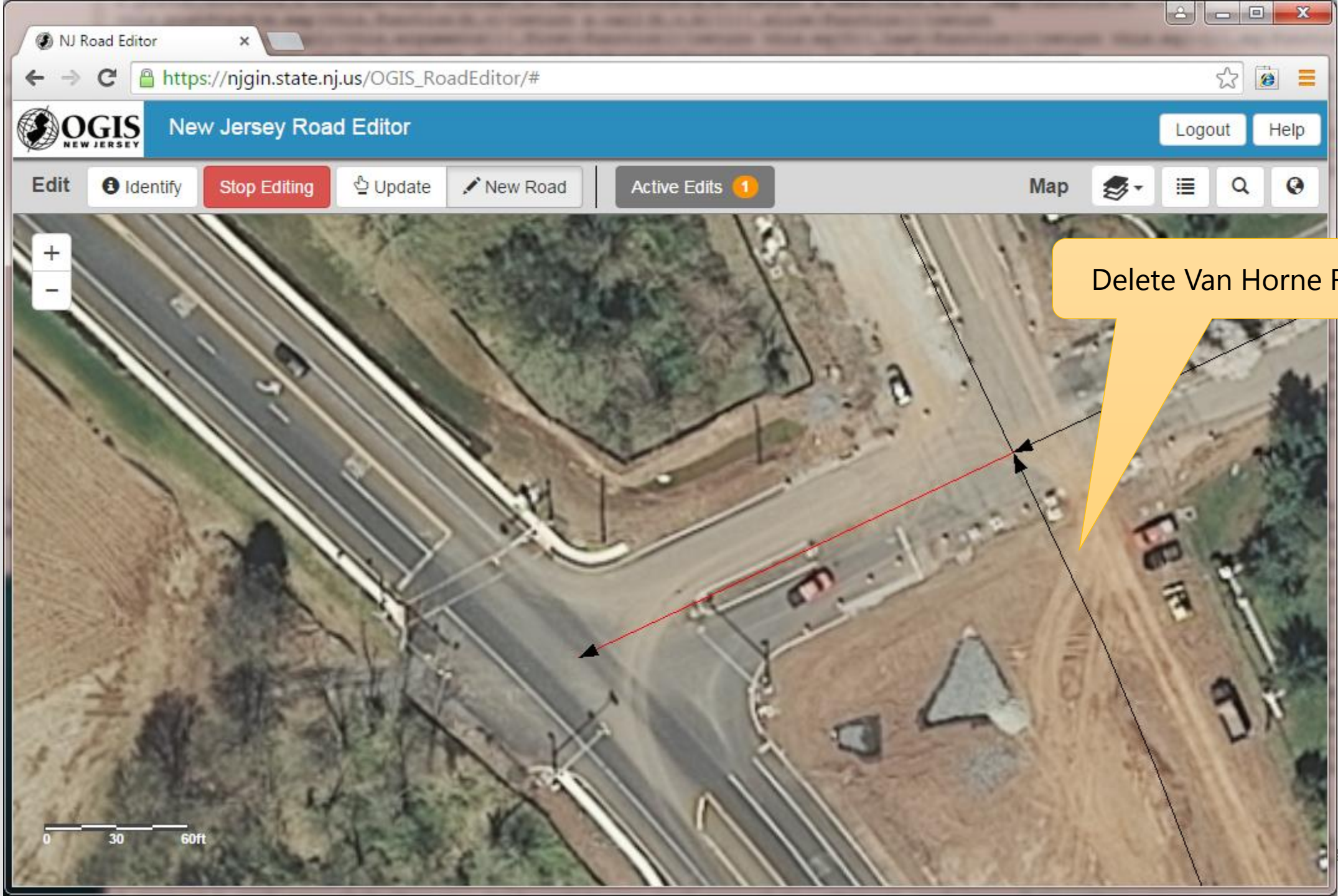
OK





6. Suggest deleting an Existing Road





NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/index.html

OGIS NEW JERSEY

Edit **Identify** **Stop Edit**

Left Side Zipcode 08502

Right Side Zipcode 08502

Left Side Zipname BELLE MEAD

Right Side Zipname BELLE MEAD

*** Left Side Municipality** Montgomery Township, Somerset

*** Right Side Municipality** Montgomery Township, Somerset

*** Surface Type** Improved

*** Status Type** Active

*** Symbol Type** US Highway

This Road Should Be... Deleted

Comments After construction this road segment no longer exists. Please delete.

Cancel **OK**



NJ Road Editor

https://njgin.state.nj.us/OGIS_RoadEditor/#

OGIS NEW JERSEY New Jersey Road Editor Logout Help

Edit Identify Stop Editing Update New Road Active Edits 2 Map

2 edits in the "Active Edits"

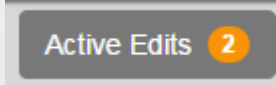
Both road segments are red, indicating that they are flagged as "Incoming"

Final (approved)
Draft (under review)
Incoming (pre-review)

0 30 60ft

NJ NENA 2016

7. View Current Edits

- Click the Active Edits  button.
- Use the dropdowns to view edits and/or delete them.
- Maximum of 5 edits per edit session.




NJ Road Editor

← → ↻

https://njgin.state.nj.us/OGIS_RoadEditor/#

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 **OGIS**
NEW JERSEY

New Jersey Road Editor

Logout Help

Edit

Identify

Stop Editing

Update

New Road

Active Edits 2

Map

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-

Active Edits

✕

Update #2 ▼ ✕

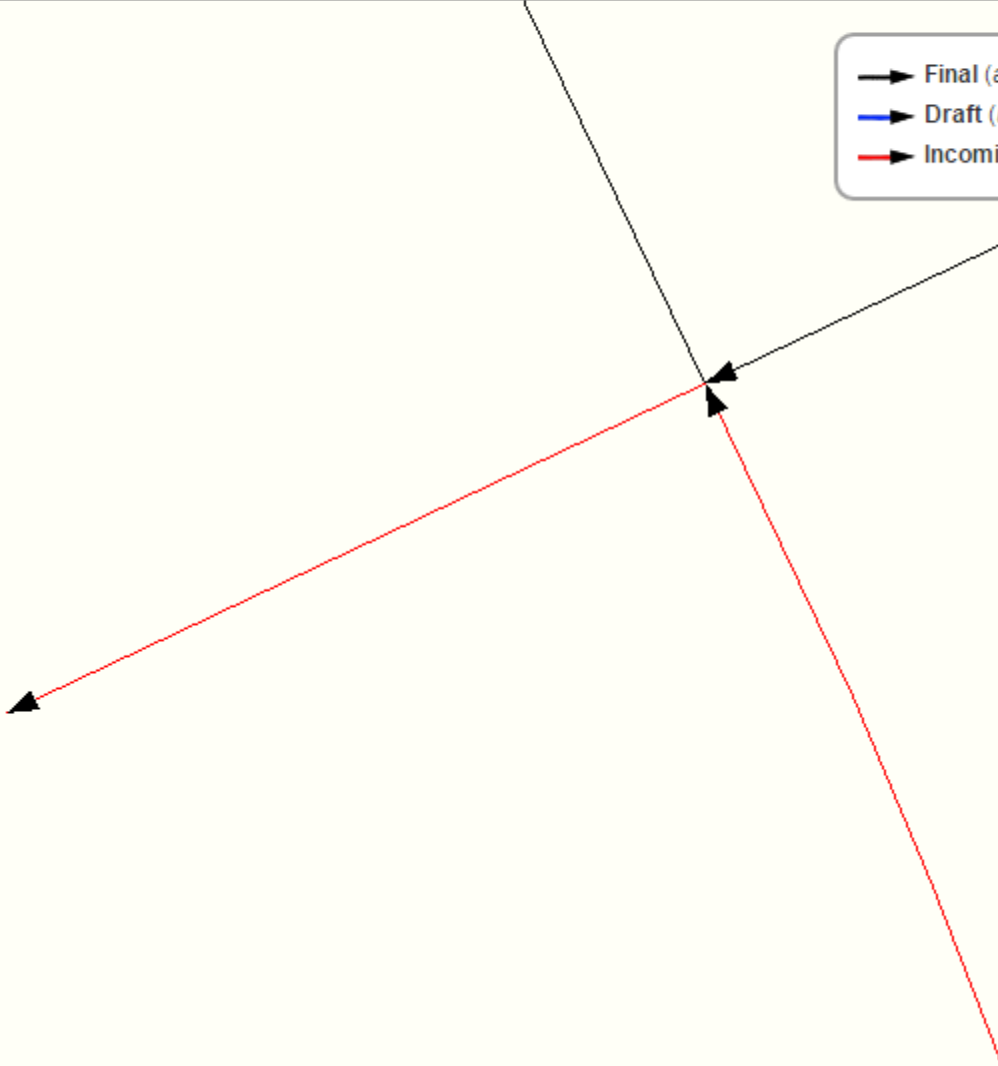
New Road #1 ▼ ✕


→ Final (approved)

→ Draft (under review)

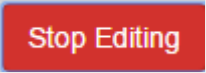
→ Incoming (pre-review)

0 30 60ft

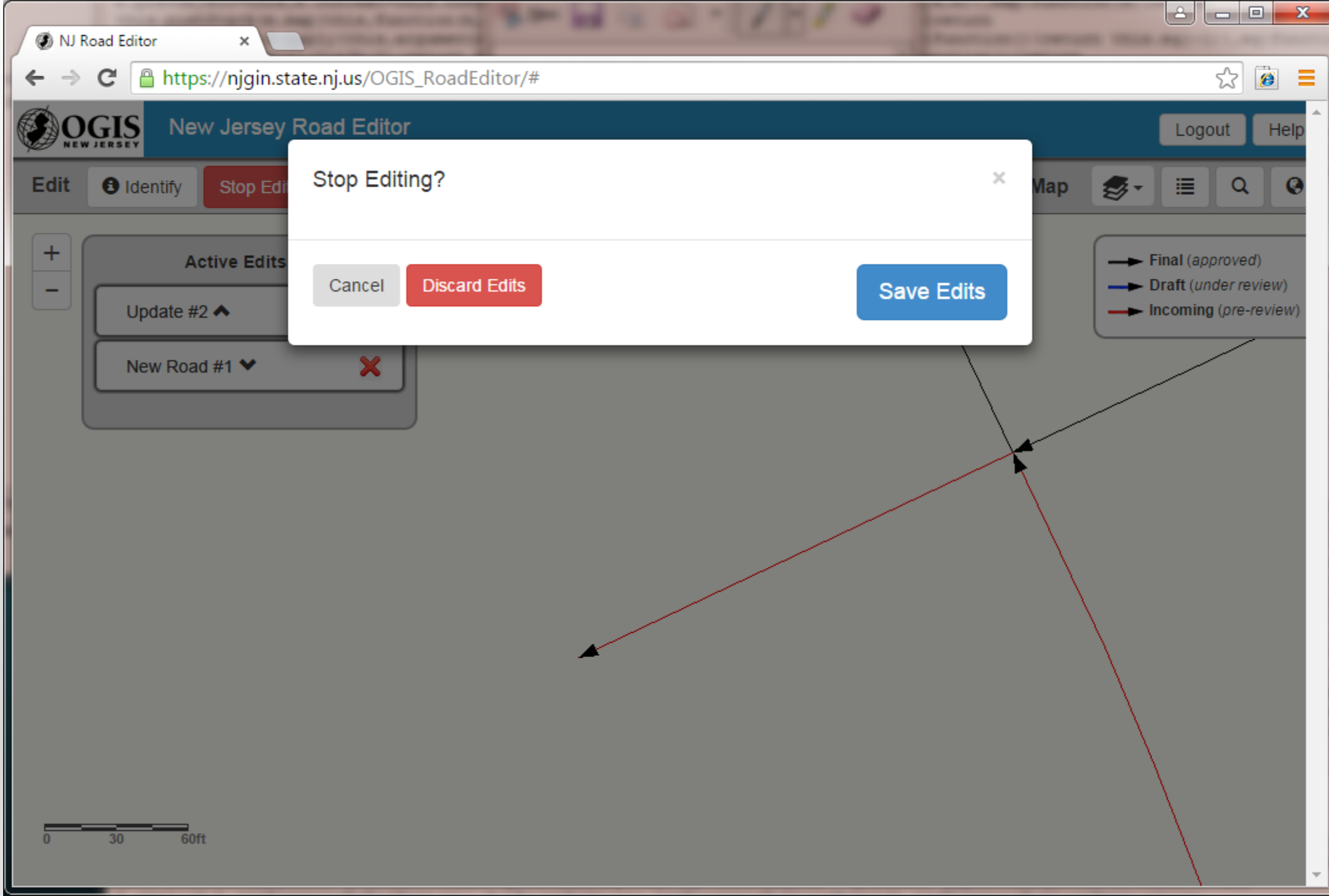


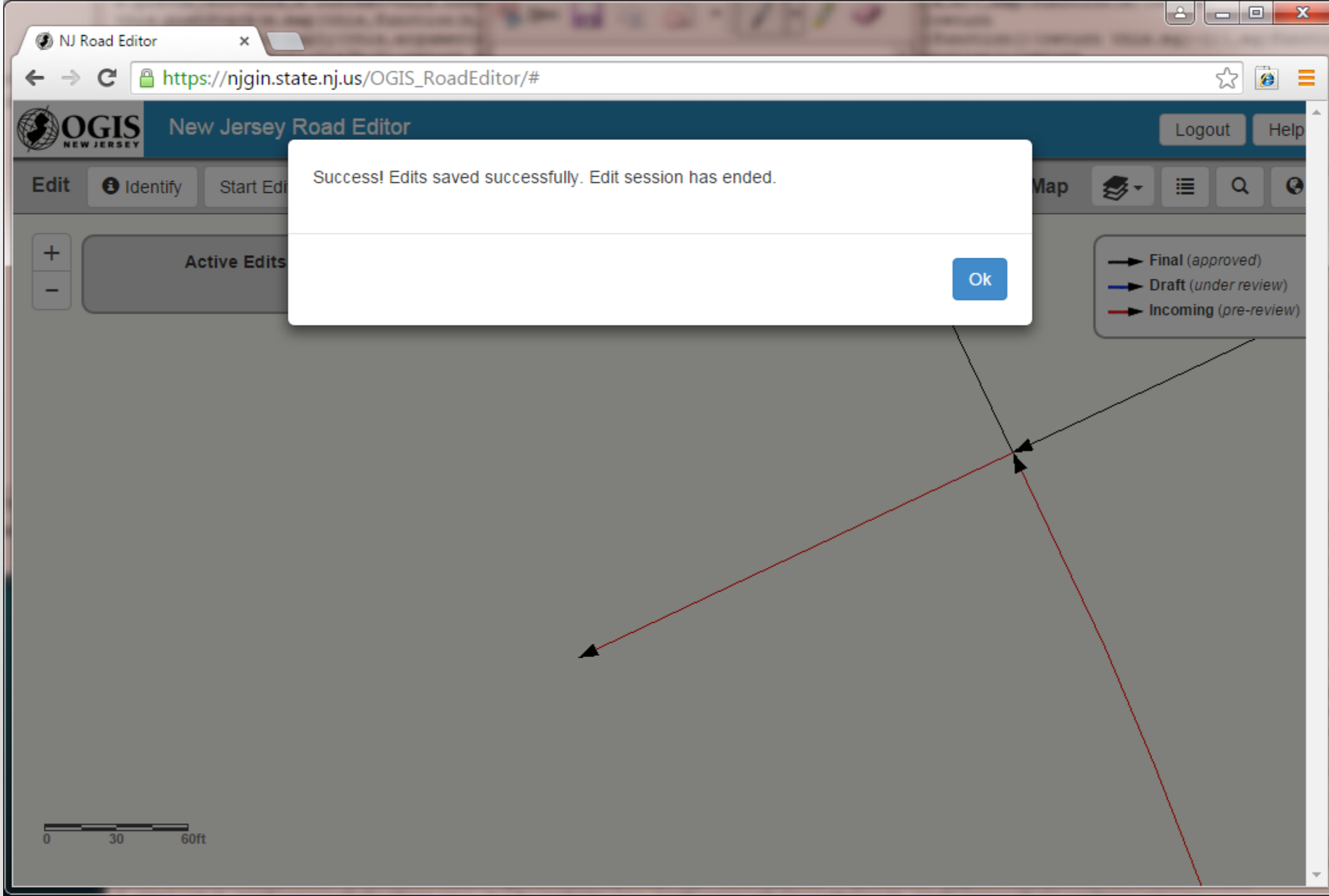


8. Save Edits

- Click the Stop Editing button 
- Either "Cancel", "Discard Edits", or "Save Edits"







NJ Road Editor

https://njgin.state.nj.us/OGIS_Road

OGIS NEW JERSEY New Jersey Road Editor

Logout Help

Edit Identify Start Editing Update New Road Active Edits 0 Map

Active Edits

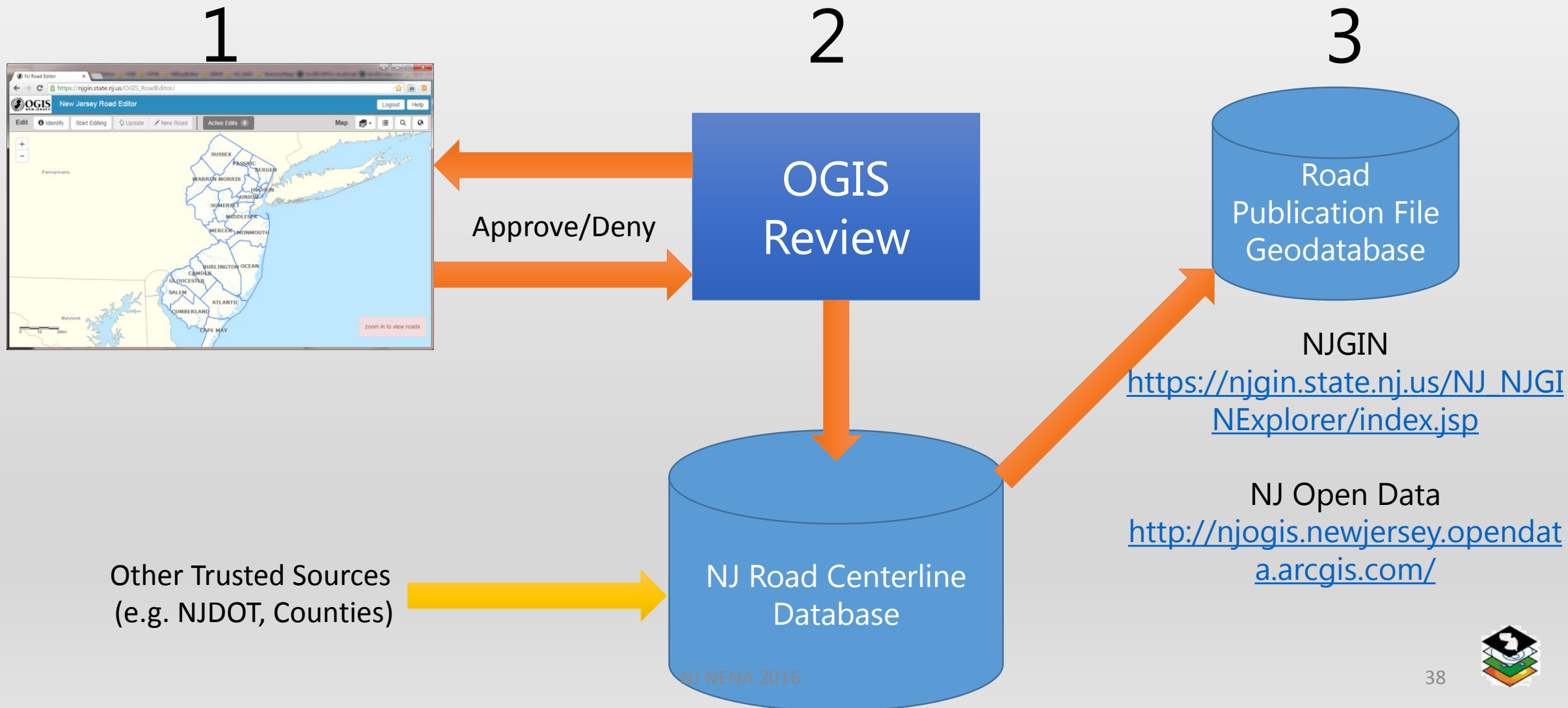
0 edits in the "Active Edits"

"Active Edits" dashboard is cleared out

Final (approved)
Draft (under review)
Incoming (pre-review)

0 30 60ft

So, what happens after I submit my edits?



How to Sign Up

1. Email njgin@oit.nj.gov,
 1. Subject: NJ Road Editor
 2. Your Name, Organization, Telephone Number
2. Subject: NJ Road Editor
3. You will receive an email with an authorization code for MyNJ Portal and the URL to the NJ Road Editor.
4. The email will be from NJ Office of Information Technology (NJOIT). The subject line will be "Authorization code for OIT OGIS Apps".



Places to get road data

- ArcGIS Server REST -
<http://geodata.state.nj.us/arcgis/rest/services/Features/Transportation/MapServer/0>
- NJ OGIS ArcGIS Online -
<http://newjersey.maps.arcgis.com/home/item.html?id=a845e8b133e34c6eb4da0062bedb99dc>
- NJ OGIS OpenData -
http://njogis.newjersey.opendata.arcgis.com/datasets/a845e8b133e34c6eb4da0062bedb99dc_0
- Through you County/Municipal GIS Coordinator
- Email us and ask! njgin@oit.nj.gov



The bottom line

- Validating the location **quickly**
- Sending the **correct** responders as efficiently as possible





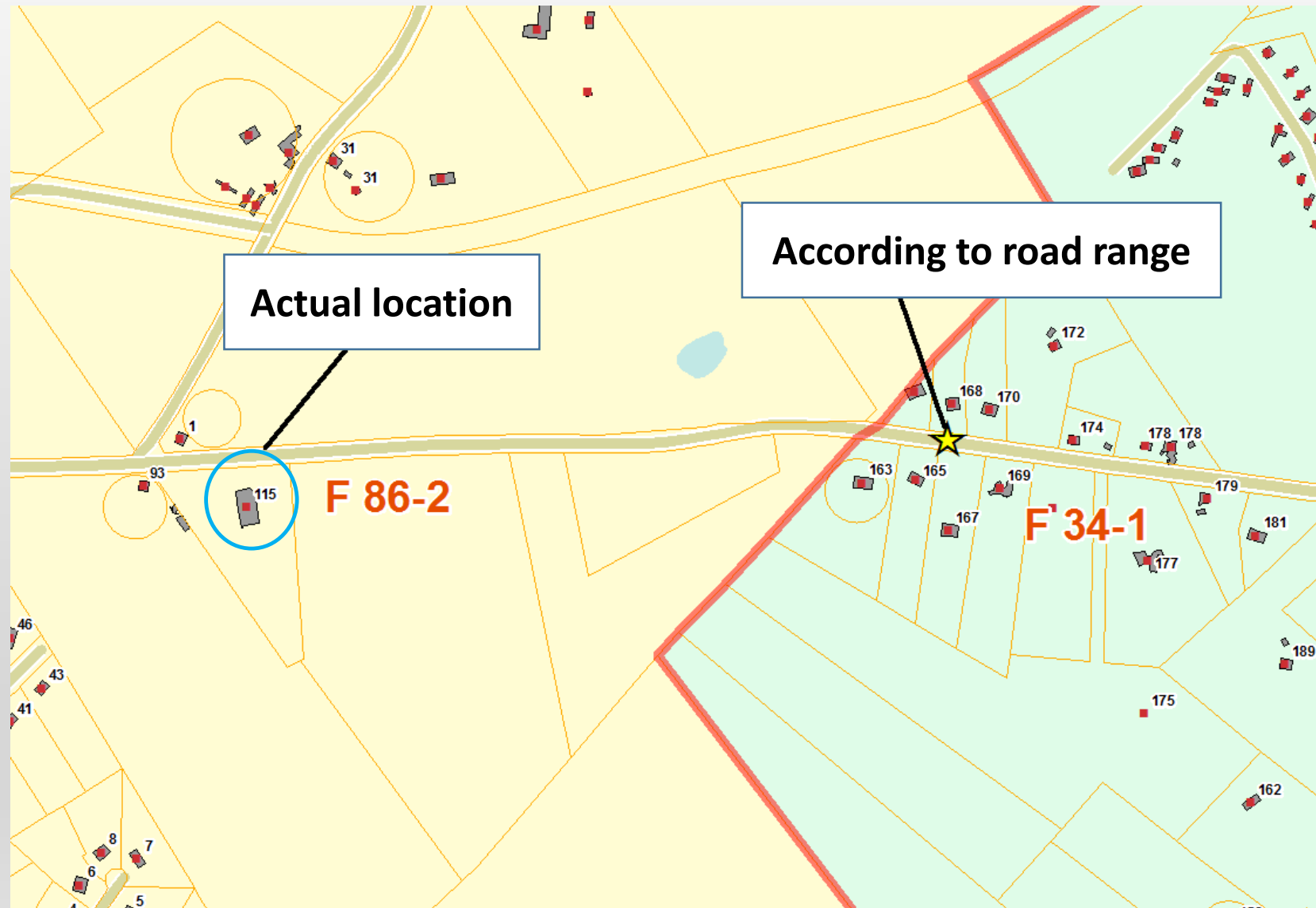
I'm at the...

"Twin Garden Apartments
Apt A"

"Wawa in South Brunswick"



The linear referencing problem...

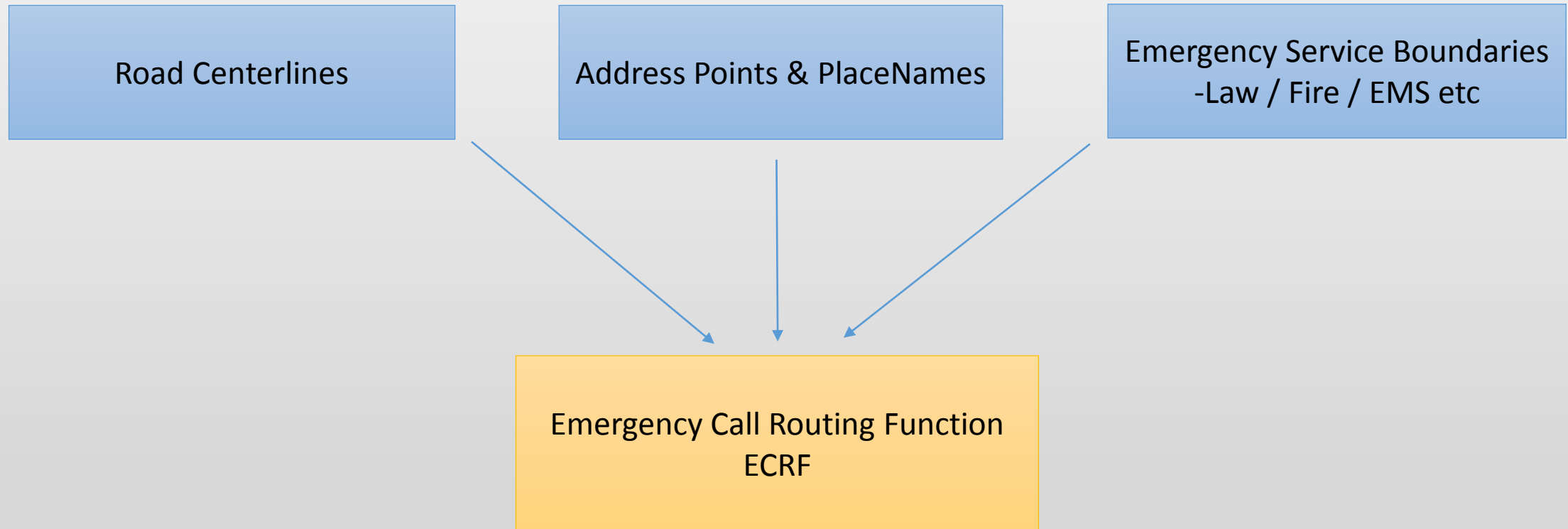


Benefits of Address Points

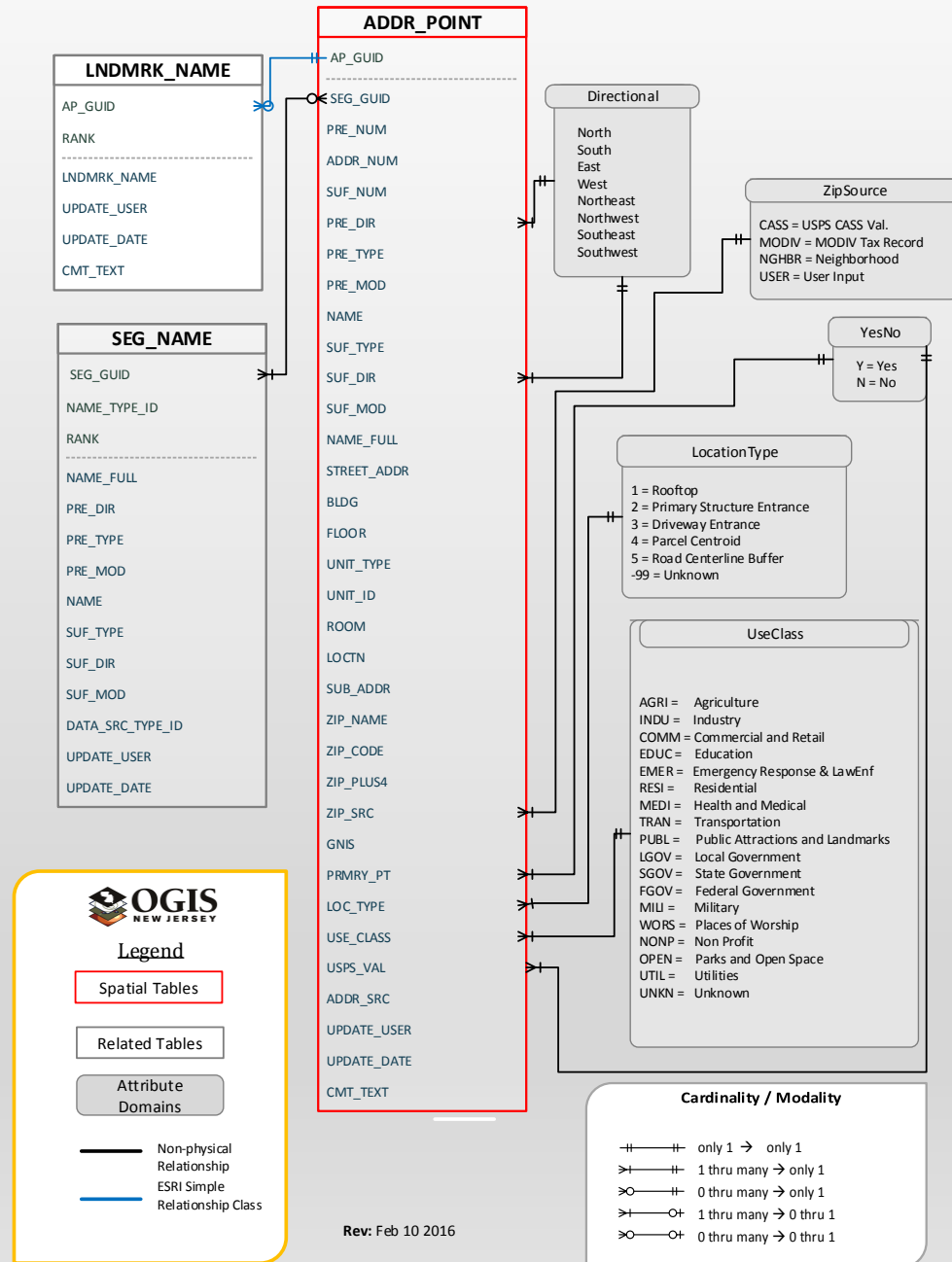
- Provides the best location validation for NG9-1-1 emergency call routing
- Allows for locating placenames and subaddresses
- Supports other mission critical uses within the public safety enterprise



Are you prepared?



New Jersey Address Points Data Model



-2.9 million points

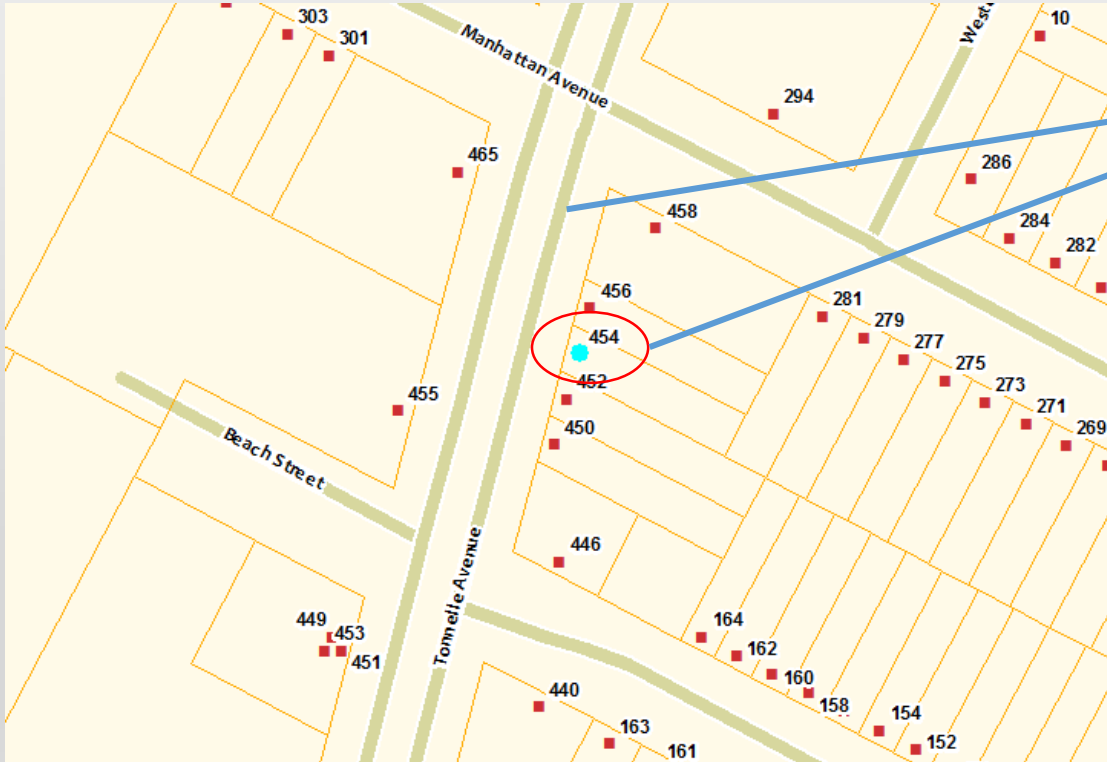
-83% match NJ Road Centerlines

-300k subaddresses



Benefits of NJ Address Point Model

- **Street Names from the NJ Road Centerline Model**



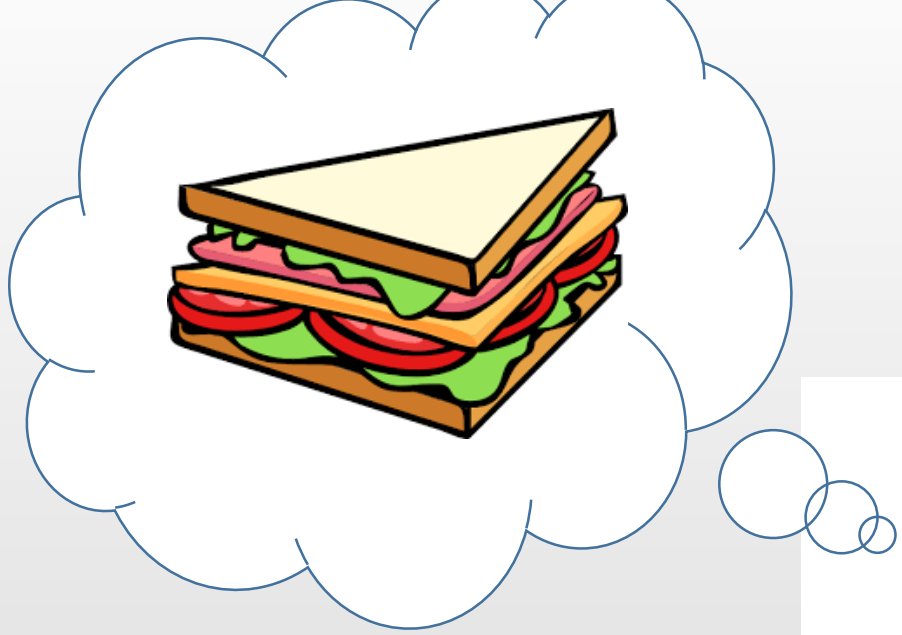
SEG_GUID	NAME_TYPE_ID	RANK	NAME_FULL
{20AFBBBCA-1708-11E3-B5F2-0062151309FF}	H	2	US Highway 9
{20AFBBBCA-1708-11E3-B5F2-0062151309FF}	L	1	Tonnelle Avenue
{20AFBBBCA-1708-11E3-B5F2-0062151309FF}	H	1	US Highway 1



Benefits of NJ Address Point Model

- Follows **NENA NG 9-1-1** Standards
 - Development of Site/Structure Address Point GIS Data for 9-1-1 *NENA-INF-014.1-2015*
 - NENA Standard for NG9-1-1 GIS Data Model *In Development*
- Postal Validation provided by NJOIT (Postal Name, ZipCode, Zip4)
- NJOIT tools for extracting, converting data to your CAD system
- **A shared data model promotes interoperability.**





Going forward

April 2016

- Publish first draft statewide address points for public use

4th Quarter 2016-2017

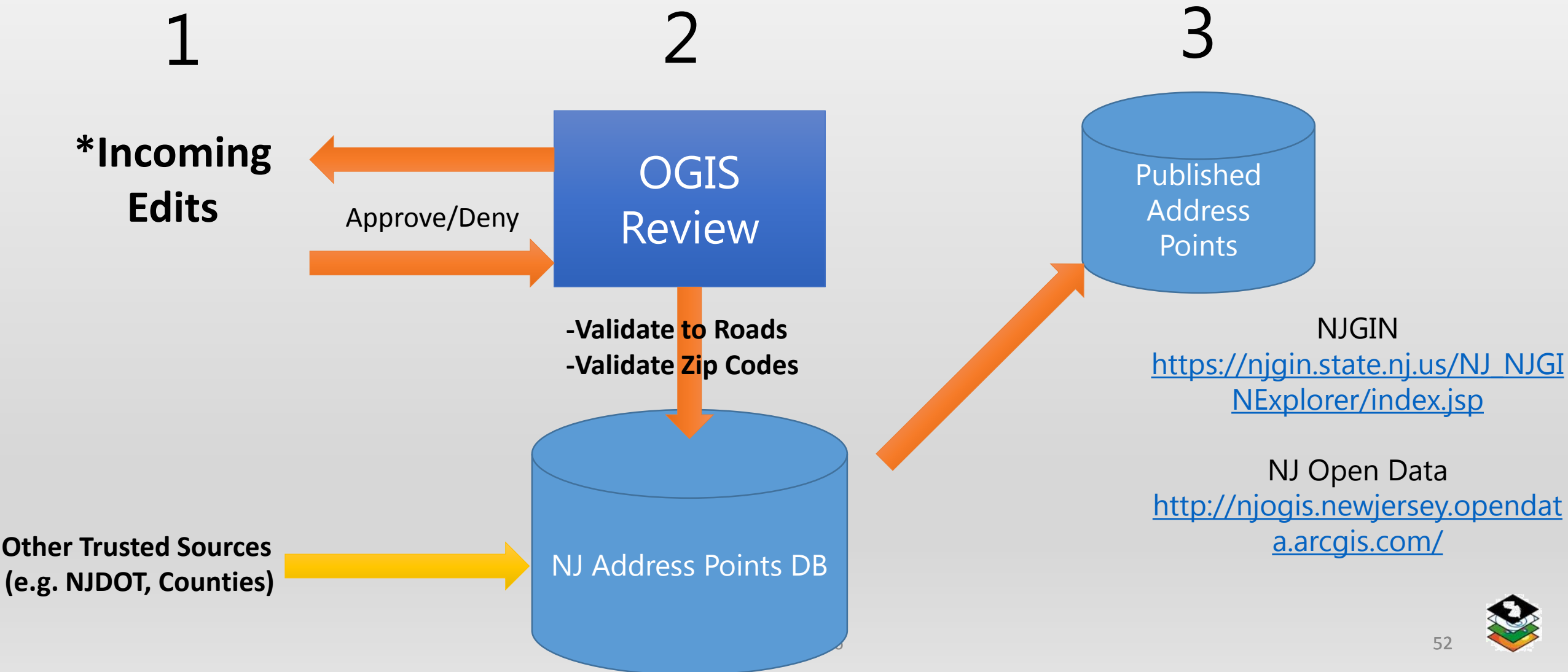
- Web Application for Editing Address Points
- ArcGIS Desktop tools for Editing

Indefinitely

- Regular contributions from local agencies, state agencies



Address Update Workflow



Where can I get it..

1. Email njgin@oit.nj.gov
 1. Subject: NJ Address Points
 2. Your Name, Organization, Telephone Number
2. Will be available on NJGIN (njgin.state.nj.us) & Open Data (njogis.newjersey.opendata.arcgis.com)



Questions: njgin@oit.nj.gov

